Item #20a and 20b: Furbearer Population

Evaluation Objectives: To monitor changes in the population status of forest carnivores including Canada lynx, wolverine, and fisher, on the forest.

Methods: Montana FWP annually collects harvest data from several furbearer species through mandatory trapper pelt registration and carcass or skull turn-ins. This information is analyzed and used to estimate population trends for these species to manage harvest quota levels. Carnivore population trend is estimated for the period 1997 – 2002 using MT FWP trap data. This data includes numbers of animals trapped by trapping district (TD), as well as yearly sums by sex of harvested animals. The Flathead National Forest falls within TD1. Trapping district 1 encompasses all of northwest Montana and includes the Kootenai National Forest and the north half of the Lolo National Forest primarily Sanders, Lincoln, Flathead and Lake Counties. Information can be obtained at http://fwp.mt.gov/hunting/planahunt/harvestreports.html. Reports online are available up to 2002. A representative sample would be harvest statistics from Region 1, Flathead County.

Evaluation:

A. Lynx

Although managed as a furbearer in Montana, the lynx was listed as "threatened" in the lower 48 states under a proposed rule by the FWS on June 30, 1998. The MT FWP Commission voted to close the lynx trapping season in Montana for the 1999-2000 season. In April, 2000, the FWS officially declared the lynx as "threatened" under the Endangered Species Act in the lower 48 states. There is no longer a trapping season for lynx and no lynx have been legally harvested since 1997. The Forest Service Rocky Mountain Research Station has conducted major research on lynx ecology including demography, habitat-use at multiple scales, movements, dispersal, relationship to coyotes, and distribution since 1997. Canada Lynx Analysis Units (LAUs) are used for analyzing lynx habitat for projects and forest-wide summaries. The Northern Rockies Lynx Management (NRLM) Direction Record of Decision (ROD), published in 2007, lists standards and guidelines for lynx habitat that are to be analyzed by LAU. Acres of activities are reported annually to the FWS as a requirement to the biological opinion for the 2007 decision.

B. Wolverine

Since at least the early 1980s, the trapping season for the wolverine has remained relatively unchanged, with a limit of 1 per trapper. The state quota has been 11-12 animals per year with 5 animals for trapping district 1 (TD1). From 1992-2002 an average of 2.6 wolverines have been harvested annually in TD1, although this figure has declined considerably the last 4 years. This compares with an average of about 9 harvested annually statewide. Flathead and Lincoln Counties are the top 2 producing counties in TD1 with a total of 87% the known harvest. However, there appears to be a decrease in the number of wolverines harvested in Flathead County and an increase in the number of wolverines being harvested in Lincoln County. Since 1973, the three forks of the Flathead and the Swan River produced about 60% of the wolverine harvest.

The Forest Service Rocky Mountain Research Station has conducted major research on wolverine ecology. The Glacier Wolverine Project was initiated in 2002 with the primary objective of studying reproductive ecology and den site habitat associations.

C. Fisher

In 1985, the trapping season for fisher was re-opened for the first time in over 20 years. During the intervening period, any fishers captured were to be either released or turned over to MT FWP. A quota of 10 was established for MT FWP TD1. In 1994, the quota was reduced to 5 and further reduced to 2 in 1997. The state quota is only 7 animals. No fishers were trapped in Flathead County from 1996-2006.

An examination of the major drainages from which fisher were captured further illustrates the shifts in trapper success. Prior to 1990, the South Fork of the Flathead had the most captures in Region 1 with a total of 12 captures. Since then, only 1 has been harvested. None have been taken from the North or Middle Forks during the 1990s, and the number from the Swan Valley has dropped from 4 to 1. The only fisher trapped in the Whitefish Range during the 1990s was captured on Stryker Ridge in 1996. It was ear-marked and had been part of a transplant from Edmonton, Alberta to the Gold Creek area of British Columbia in 1995. While no fishers have been captured on the FNF or adjacent areas in recent years, it is important to note that MT FWP personnel have encountered fisher tracks several times each year for the past several years during the course of winter track surveys. The Forest Service Rocky Mountain Research Station is conducting Region 1 wide distribution surveys. The objectives of the study are to delineate the geographic range of fisher in the Rocky Mountains. Specifically in detecting all the populations, and determining these populations boundaries and determine which Rocky Mountain fisher populations have native genes and which fisher populations are comprised of reintroduced individuals.

Table 20-1. Furbearer Harvest From Flathead County

	Wolverine	Fisher	Lynx
1996	4	0	8
1997	3	0	0
1998	0	0	0
1999	0	0	no traps
2000	4	0	no traps
2001	0	0	no traps
2002	0	0	no traps
2003	2	0	no traps
2004	No on-line data		no traps
2005	0		no traps
2006	0		no traps
2007	No on-line data		no traps

D. Track Surveys

Snow track surveys are utilized to determine species occurrence and distribution, trends from detection rates and relative abundance. Results and statistics could vary based on timing of

surveys, snow conditions and surveyor expertise. The relative abundance of lynx, wolverine and fishers are low throughout the forest and northwest Montana.

Table 20-2. Track Detection Rates for Trapping District 1

	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00
Hares	-	-	515.7	348.4	1297.9	1197.3	998.5	1944.7	1159.7	1157.4
Squirrels	-	-	-	-	352.5	1270.6	267.9	696.4	258.6	136.3
Marten	137.0	-	125.2	39.6	86.3	88.7	39.9	110.5	75.6	40.8
Fisher	0.0	-	0.4	2.5	1.0	0.0	1.9	0.5	0.8	1.2
Wolverine	0.0	-	2.0	2.5	4.5	5.7	3.7	0.5	2.6	3.5
Lynx	0.0	-	1.2	3.3	3.0	2.8	3.5	19.3	12.6	8.6
Bobcat	0.0	-	2.4	2.5	5.5	2.8	9.7	5.9	6.9	14.1
Lion	0.0	-	4.4	5.8	10.6	18.8	7.1	5.6	6.3	0.6
Weasels	-	-	-	13.2	132.3	158.8	84.8	107.0	167.1	92.4
Coyote	-	-	-	45.4	102.5	172.9	80.3	122.3	70.2	70.8

Winter track surveys 2002/03. Adverse weather and snow conditions prevented MT FWP R-1 biologists from completing their normal number of winter track surveys in 2002/03. The backcountry Shafer Route was not completed at all, and many of the other routes received only one or two replicates instead of the usual three. Nevertheless, MT FWP R-1 biologists completed a minimum of 385 miles of survey routes. Within this distance, a minimum of 450 coyote, 20 lion, 82 bobcat, 239 lynx, 7 wolverine, 242 marten and 7,270 hare tracks were observed. In addition, 565 weasel and 1,313 squirrel tracks were recorded in 257 miles of track survey distance. No fisher tracks were recorded during surveys, and 1 wolverine was observed during a training session.

North and Middle Fork Flathead Rivers carnivore surveys – 2000/01-2003/04. Core lynx habitat exists in the low through mid-elevation range within drainages from the Canada border south through Hay Creek. Less lynx tracks were observed in 2003/04 possible due to the Wedge Fire of 2003. Some tracks observed in and around the perimeter of the Wedge Fire and nearly twice as many lynx tracks were detected to the south of the fire in the Moose Creek to Hay Creek area. No fisher tracks were observed on the Flathead NF portion of the survey area. Wolverines were detected but most of the track surveys were low to mid-elevation habitat not typically preferred by wolverines. Thirteen mammalian carnivore species were detected in the North Fork: wolf, coyote, bobcat, Canada lynx, marten, weasel, mink, river otter, wolverine, striped skunk, grizzly bear, red fox, and mountain lion.

Lynx/Coyote competition telemetry/track surveys – Swan Range. Recently, a 3-year RMRS study concluded that it was unlikely that snowmobile recreation increased competition between coyotes and lynx in western Montana. Results from this study have: 1) provided the scientific bases for relaxing restrictions on groomed snowmobile trails as part of lynx conservation standards across millions of acres of federal land; and 2) increased understanding of coyote winter ecology relative to lynx management.

Trapping harvest is influenced by fur prices and efforts of individual trappers, while winter track data is influenced by changes in route locations, observers, and miles surveyed between years or

periods. These influences make comparisons or trends difficult. FWP surveys are conducted annually as a vital part of wildlife management programs but track survey efforts have been inconsistent. Montana FWP conducts surveys to evaluate:

- How many animals were harvested from certain populations or areas;
- Trends in animal population levels, habitat conditions or crop impacts:
- Hunter pressure and over harvest patterns on public and private land
- Basic biological information of the sex and age of the animals harvested.

Habitat maintenance for the furbearers occurs at the project level through implementation of management direction. Habitat improvement projects for big game and threatened and endangered species, wildfires and fire use management provide diversity of habitats for small and big game species. Hunting and trapping are closely regulated by MT FWP so that some of the excess animals in a population are removed each year. Hunting and trapping remain as one of the most important management tools because harvest can be controlled by laws and regulations. Hunting and trapping seasons are longer and the harvests are greater during the years of abundant populations. Seasons may be shortened and harvests smaller when numbers are down. Hunting can be reduced or stopped to help lower their death rate increasing population levels; as with threatened or endangered species. Trapping regulations, for example, are often changed from year to year to reflect changes in animal numbers. Trapping season lengths may also be adjusted to reflect the animal populations or quotas are established to limit excessive harvest. In this way, trapping can be used to keep wildlife populations healthy; to keep wildlife within the carrying capacity of their habitat; and to protect the habitat from damage.

In addition to habitat quality and quantity, many factors other than Forest Service management can influence forest carnivores. Mild winters, severe winters, predation, habitat loss due to private land development, and trapping also affect the population. The state has the responsibility to monitor furbearers and harvest success, and to regulate the harvest accordingly for sustainable populations. Montana FWP and the Forest Service have a unique partnership to jointly manage wildlife and wildlife habitat. Montana FWP is responsible for protecting, enhancing and regulating the sustainable use of the state's wildlife resources for public benefit now and in the future. Montana FWP manages its wildlife program to balance harvest with the perpetuation and protection of wildlife populations. Montana FWP provides and supports programs to conserve and enhance Montana's terrestrial ecosystems and the diversity of species inhabiting them, oftentimes in cooperation with the Flathead National Forest. Forest biologists are in contact with State FWP biologists during forest management projects that may potentially affect wildlife. State FWP biologists often provide technical assistance in project design to benefit or reduce impacts to wildlife habitat.

Recommended Action: Statistical estimates of trapping, hunting, and harvest in Montana are maintained and monitored by the FWP. Winter track survey efforts assist in providing information on furbearer trend and distribution but have been inconsistent due to personnel limitations and weather conditions. Perhaps the most important data is obtained from trappers and houndsmen who are required to submit for tagging all hides from bobcat, otter, marten, fisher and wolverine that are taken and submitted to the FWP. There is no season for lynx. Montana FWP has the monitoring in place to maintain furbearers on the landscape. The Flathead National Forest should evaluate lynx habitat conditions with the use of the habitat monitoring requirements for the

Northern Region Lynx Management (NRLM) biological opinion terms and conditions. In addition, maintaining Amendment 21 standards for coarse woody material, snags and old growth in forest stands, plus Forest Plan riparian management standards, provide potential habitat components for furbearers.